

II. CLAIMS

This listing of claims replaces all prior versions, and listings, of claims of the application.

21. (Currently amended) A mounting system for a pellicle comprising:

a mounting structure for coupling a pellicle to a mask, wherein a sealed interior portion is formed between the pellicle, the mask and the mounting structure; and

a pressure regulator in communication with the sealed interior portion to control a pressure in the interior portion, wherein the pressure regulator is coupled to a device for measuring the pressure in the interior portion.

22. (Previously presented) The mounting system of claim 21, further comprising a source of high pressure gas coupled to the pressure regulator, and a source of low pressure gas coupled to the pressure regulator.

23. (Previously presented) The mounting system of claim 22, wherein one of the sources of pressure gas is the exterior environment.

24. (Previously presented) The mounting system of claim 21, further comprising a pressure sensor operatively coupled to the pressure regulator for detecting a pressure of the interior portion.

25. (Previously presented) The mounting system of claim 21, further comprising a position sensor operatively coupled to the pressure regulator to determine the position of the pellicle;

wherein the pressure difference is controlled by the pressure regulator to maintain a flat surface on the pellicle based on a reading from the position sensor.

26. (Previously presented) The mounting system of claim 21, further comprising a velocity sensor operatively coupled to the pressure regulator to determine the velocity of the pellicle;

wherein the pressure difference is controlled by the pressure regulator to maintain a flat surface on the pellicle based on a reading from the velocity sensor.

27. (Previously presented) The mounting system of claim 21, further comprising a calibrated leak from the interior portion to an exterior environment.

28. (Previously presented) The mounting system of claim 21, further comprising an aerodynamic fairing adjacent the mounting structure.

29. (Previously presented) The mounting system of claim 21, wherein the pressure regulator communicates with the sealed interior portion through a port in the mounting structure.

30. (Previously presented) A pellicle mounting system for a mask, the mounting system comprising:

an aerodynamic fairing adjacent the mask, the fairing having a taper to reduce aerodynamic drag on the pellicle and a portion that is co-planar with the pellicle.

31. (Previously presented) The mounting system of claim 30, further comprising:

a mounting structure for coupling the pellicle to the mask, wherein a sealed interior portion is formed between the pellicle, the mask and the mounting structure; and

a pressure regulator to adjust a pressure in the interior portion.

32. (Previously presented) The mounting system of claim 31, further comprising a position sensor operatively coupled to the pressure regulator to determine the position of the pellicle;

wherein the pressure difference is controlled by the pressure regulator to maintain a flat surface on the pellicle based on a reading from the position sensor.

33. (Previously presented) The mounting system of claim 31, further comprising a velocity sensor operatively coupled to the pressure regulator to determine the velocity of the pellicle;

wherein the pressure difference is controlled by the pressure regulator to maintain a flat surface on the pellicle based on a reading from the velocity sensor.

34. (Previously presented) The mounting system of claim 30, wherein an aerodynamic fairing is provided adjacent each end of the mask that faces a direction of movement of the mounting system.

35. (Previously presented) The mounting system of claim 34, further comprising a retractable plate for providing a substantially continuous surface between the aerodynamic fairings.

36. (Previously presented) The mounting system of claim 30, wherein the taper extends to a mask stage and the portion is adjacent the pellicle, and further comprising a curved surface extending between the taper and the portion.

37. (Currently amended) A method of reducing distortion of a pellicle for a mask, the method comprising the steps of:

sealing the pellicle to the mask using an airtight mounting structure such that an interior portion is created between the pellicle, the mask and the mounting structure; and

regulating a pressure in the interior portion to reduce distortions in the pellicle, wherein the pressure regulating step includes measuring the pressure in the interior portion.

38. (Previously presented) The method of claim 37, further comprising the step of providing an aerodynamic fairing adjacent the mask to reduce turbulent airflow across the pellicle.

39. (Previously presented) The method of claim 37, wherein the pressure is regulated according to feedback from at least one of a pressure sensor coupled to the interior portion, a position sensor for the pellicle, and a velocity sensor for the pellicle.

40. (Previously presented) The method of claim 37, wherein the regulating step includes regulating the pressure to maintain a flat surface on the pellicle.